5-8-02

SEQUENCE LISTING

<110> Hall, Roderick L.
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Newton, Benjamin B.
Taylor, William J.A.

<120> Method For Accelerating The Rate of Mucociliary Clearance

<130> 98-736

<140> US 09/218,913
<141> 1998-12-22

<160> 105

<170> PatentIn version 3.1

<210> 1
<211> 179
<212> PRT
<213> Homo sapiens

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Ala Asp Arg Glu Arg Ser Ile His Asp Phe Cys Leu Val Ser Lys Val
1 5 10 15

Val Gly Arg Cys Arg Ala Ser Met Pro Arg Trp Trp Tyr Asn Val Thr
20 25 30

Asp Gly Ser Cys Gln Leu Phe Val Tyr Gly Gly Cys Asp Gly Asn Ser
35 40 45

Asn Asn Tyr Leu Thr Lys Glu Glu Cys Leu Lys Lys Cys Ala Thr Val
50 55 60

Thr Glu Asn Ala Thr Gly Asp Leu Ala Thr Ser Arg Asn Ala Ala Asp
65 70 75 80

Ser Ser Val Pro Ser Ala Pro Arg Arg Gln Asp Ser Glu Asp His Ser
85 90 95

Ser Asp Met Phe Asn Tyr Glu Glu Tyr Cys Thr Ala Asn Ala Val Thr
100 105 110

Gly Pro Cys Arg Ala Ser Phe Pro Arg Trp Tyr Phe Asp Val Glu Arg
115 120 125

Asn Ser Cys Asn Asn Phe Ile Tyr Gly Gly Cys Arg Gly Asn Lys Asn
130 135 140

Ser Tyr Arg Ser Glu Glu Ala Cys Met Leu Arg Cys Phe Arg Gln Gln
145 150 155 160

Glu Asn Pro Pro Leu Pro Leu Gly Ser Lys Val Val Val Leu Ala Gly
165 170 175

Ala Val Ser

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<213> Homo sapiens

<220>
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<222> (1)..(18)
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Leu Ala Ala Asp Arg Glu Arg Ser Ile His Asp Phe Cys Leu Val Ser
20 25 30

Lys Val Val Gly Arg Cys Arg Ala Ser Met Pro Arg Trp Trp Tyr Asn
35 40 45

Val Thr Asp Gly Ser Cys Gln Leu Phe Val Tyr Gly Gly Cys Asp Gly
50 55 60

Asn Ser Asn Asn Tyr Leu Thr Lys Glu Glu Cys Leu Lys Lys Cys Ala
65 70 75 80

Thr Val Thr Glu Asn Ala Thr Gly Asp Leu Ala Thr Ser Arg Asn Ala
85 90 95

Ala Asp Ser Ser Val Pro Ser Ala Pro Arg Arg Gln Asp Ser Glu Asp
100 105 110

His Ser Ser Asp Met Phe Asn Tyr Glu Glu Tyr Cys Thr Ala Asn Ala
115 120 125

Val Thr Gly Pro Cys Arg Ala Ser Phe Pro Arg Trp Tyr Phe Asp Val
130 135 140

Glu Arg Asn Ser Cys Asn Asn Phe Ile Tyr Gly Gly Cys Arg Gly Asn
145 150 155 160

Lys Asn Ser Tyr Arg Ser Glu Glu Ala Cys Met Leu Arg Cys Phe Arg
165 170 175

Gln Gln Glu Asn Pro Pro Leu Pro Leu Gly Ser Lys Val Val Val Leu
180 185 190

Ala Gly Ala Val Ser
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<210> 3
<211> 153
<212> PRT
<213> Homo sapiens

<400> 3

Ile His Asp Phe Cys Leu Val Ser Lys Val Val Gly Arg Cys Arg Ala
1 5 10 15

Ser Met Pro Arg Trp Trp Tyr Asn Val Thr Asp Gly Ser Cys Gln Leu
20 25 30

Phe Val Tyr Gly Gly Cys Asp Gly Asn Ser Asn Asn Tyr Leu Thr Lys
35 40 45

Glu Glu Cys Leu Lys Lys Cys Ala Thr Val Thr Glu Asn Ala Thr Gly
50 55 60

Asp Leu Ala Thr Ser Arg Asn Ala Ala Asp Ser Ser Val Pro Ser Ala
65 70 75 80

Pro Arg Arg Gln Asp Ser Glu Asp His Ser Ser Asp Met Phe Asn Tyr
85 90 95

Glu Glu Tyr Cys Thr Ala Asn Ala Val Thr Gly Pro Cys Arg Ala Ser
100 105 110

Phe Pro Arg Trp Tyr Phe Asp Val Glu Arg Asn Ser Cys Asn Asn Phe
115 120 125

Ile Tyr Gly Gly Cys Arg Gly Asn Lys Asn Ser Tyr Arg Ser Glu Glu
130 135 140

Ala Cys Met Leu Arg Cys Phe Arg Gln
145 150

<210> 4
<211> 58
<212> PRT
<213> Homo sapiens

<400> 4

Ile His Asp Phe Cys Leu Val Ser Lys Val Val Gly Arg Cys Arg Ala
1 5 10 15

Ser Met Pro Arg Trp Trp Tyr Asn Val Thr Asp Gly Ser Cys Gln Leu
20 25 30

Phe Val Tyr Gly Gly Cys Asp Gly Asn Ser Asn Asn Tyr Leu Thr Lys
35 40 45

Glu Glu Cys Leu Lys Lys Cys Ala Thr Val
50 55

<210> 5
<211> 51
<212> PRT
<213> Homo sapiens

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Cys Leu Val Ser Lys Val Val Gly Arg Cys Arg Ala Ser Met Pro Arg
1 5 10 15

Trp Trp Tyr Asn Val Thr Asp Gly Ser Cys Gln Leu Phe Val Tyr Gly
20 25 30

Gly Cys Asp Gly Asn Ser Asn Asn Tyr Leu Thr Lys Glu Glu Cys Leu
35 40 45

Lys Lys Cys

50

<210> 6
<211> 58
<212> PRT
<213> Homo sapiens

<400> 6

Tyr Glu Glu Tyr Cys Thr Ala Asn Ala Val Thr Gly Pro Cys Arg Ala
1 5 10 15

Ser Phe Pro Arg Trp Tyr Phe Asp Val Glu Arg Asn Ser Cys Asn Asn
20 25 30

Phe Ile Tyr Gly Gly Cys Arg Gly Asn Lys Asn Ser Tyr Arg Ser Glu
35 40 45

Glu Ala Cys Met Leu Arg Cys Phe Arg Gln
50 55

<210> 7
<211> 51
<212> PRT
<213> Homo sapiens

<400> 7

Cys Thr Ala Asn Ala Val Thr Gly Pro Cys Arg Ala Ser Phe Pro Arg
1 5 10 15

Trp Tyr Phe Asp Val Glu Arg Asn Ser Cys Asn Asn Phe Ile Tyr Gly
20 25 30

Gly Cys Arg Gly Asn Lys Asn Ser Tyr Arg Ser Glu Glu Ala Cys Met
35 40 45

Leu Arg Cys
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<210> 8
<211> 92
<212> PRT
<213> Homo sapiens

<400> 8

Ala Asp Arg Glu Arg Ser Ile His Asp Phe Cys Leu Val Ser Lys Val

1   5   10   15

Val Gly Arg Cys Arg Ala Ser Met Pro Arg Trp Trp Tyr Asn Val Thr
            20   25   30

Asp Gly Ser Cys Gln Leu Phe Val Tyr Gly Gly Cys Asp Gly Asn Ser
        35   40   45

Asn Asn Tyr Leu Thr Lys Glu Glu Cys Leu Lys Lys Cys Ala Thr Val
    50   55   60

Thr Glu Asn Ala Thr Gly Asp Leu Ala Thr Ser Arg Asn Ala Ala Asp
65   70   75   80

Ser Ser Val Pro Ser Ala Pro Arg Arg Gln Asp Ser
                85   90

<210> 9
<211> 708
<212> DNA
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<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (707)..(707)
<223> "n" is any nucleotide.

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ccgagaacgc agcatccacg acttctgcct ggtgtcgaag gtggtgggca gatgccgggc   120

ctccatgcct aggtggtggt acaatgtcac tgacggatcc tgccagctgt ttgtgtatgg   180

gggctgtgac ggaaacagca ataattacct gaccaaggag gagtgcctca agaaatgtgc   240

cactgtcaca gagaatgcca cgggtgacct ggccaccagc aggaatgcag cggattcctc   300

tgtcccaagt gctcccagaa ggcaggattc tgaagaccac tccagcgata tgttcaacta   360

tgaagaatac tgcaccgcca acgcagtcac tgggccttgc cgtgcatcct tcccacgctg   420

gtactttgac gtggagagga actcctgcaa taacttcatc tatggaggct gccggggcaa 480

taagaacagc taccgctctg aggaggcctg catgctccgc tgcttccgcc agcaggagaa 540

tcctcccctg ccccttggct caaaggtggt ggttctggcc ggggctgttt cgtgatggtg 600

ttgatccttt tcctggggag catccatggt cttactgatt ccgggtggca aggaggaacc 660

aggagcgtgc cctgcggano gtctggagct tcggagatga caagggnt 708

<210> 10
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<220>
<223> Amino acids -18 to 179 of translation of consensus sequence in Fig. 3.

<400> 10

Ala Gly Ser Phe Leu Ala Trp Leu Gly Ser Leu Leu Leu Ser Gly Val
1 5 10 15

Leu Ala Ala Asp Arg Glu Arg Ser Ile His Asp Phe Cys Leu Val Ser
20 25 30

Lys Val Val Gly Arg Cys Arg Ala Ser Met Pro Arg Trp Trp Tyr Asn
35 40 45

Val Thr Asp Gly Ser Cys Gln Leu Phe Val Tyr Gly Gly Cys Asp Gly
50 55 60

Asn Ser Asn Asn Tyr Leu Thr Lys Glu Glu Cys Leu Lys Lys Cys Ala
65 70 75 80

Thr Val Thr Glu Asn Ala Thr Gly Asp Leu Ala Thr Ser Arg Asn Ala
85 90 95

Ala Asp Ser Ser Val Pro Ser Ala Pro Arg Arg Gln Asp Ser Glu Asp
100 105 110

His Ser Ser Asp Met Phe Asn Tyr Glu Glu Tyr Cys Thr Ala Asn Ala
115 120 125

Val Thr Gly Pro Cys Arg Ala Ser Phe Pro Arg Trp Tyr Phe Asp Val
130 135 140

Glu Arg Asn Ser Cys Asn Asn Phe Ile Tyr Gly Gly Cys Arg Gly Asn
145   150   155   160

Lys Asn Ser Tyr Arg Ser Glu Glu Ala Cys Met Leu Arg Cys Phe Arg
                165   170   175

Gln Gln Glu Asn Pro Pro Leu Pro Leu Gly Ser Lys Val Val Val Leu
            180   185   190

Ala Gly Ala Val Ser
        195

<210> 11
<211> 179
<212> PRT
<213> Artificial Sequence

<220>
<223> Variants of human Bikunin.

<220>
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<223> Each "Xaa" independently represents a naturally occurring amino acid residue except Cys, with the proviso that at least one "Xaa" in SEQ ID NO:11 is different from the corresponding amino acid residue of the native sequence (see page 10 of specification).

<220>
<221> MISC_FEATURE
<222> (17)..(17)
<223> Each "Xaa" independently represents a naturally occurring amino acid residue except Cys, with the proviso that at least one "Xaa" in SEQ ID NO:11 is different from the corresponding amino acid residue of the native sequence (see page 10 of specification).

<220>
<221> MISC_FEATURE
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<223> Each "Xaa" independently represents a naturally occurring amino acid residue except Cys, with the proviso that at least one "Xaa" in SEQ ID NO:11 is different from the corresponding amino acid residue of the native sequence (see page 10 of specification).

<220>
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in SEQ ID NO:11 is different from the corresponding amino acid residue of the native sequence (see page 10 of specification).

<220>
<221> MISC_FEATURE
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<223> Each "Xaa" independently represents a naturally occurring amino acid residue except Cys, with the proviso that at least one "Xaa" in SEQ ID NO:11 is different from the corresponding amino acid residue of the native sequence (see page 10 of specification).

<220>
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<223> Each "Xaa" independently represents a naturally occurring amino acid residue except Cys, with the proviso that at least one "Xaa" in SEQ ID NO:11 is different from the corresponding amino acid residue of the native sequence (see page 10 of specification).

<220>
<221> MISC_FEATURE
<222> (45)..(47)
<223> Each "Xaa" independently represents a naturally occurring amino acid residue except Cys, with the proviso that at least one "Xaa" in SEQ ID NO:11 is different from the corresponding amino acid residue of the native sequence (see page 10 of specification).

<220>
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<223> Each "Xaa" independently represents a naturally occurring amino acid residue except Cys, with the proviso that at least one "Xaa" in SEQ ID NO:11 is different from the corresponding amino acid residue of the native sequence (see page 10 of specification).

<220>
<221> MISC_FEATURE
<222> (64)..(64)
<223> Each "Xaa" independently represents a naturally occurring amino acid residue except Cys, with the proviso that at least one "Xaa" in SEQ ID NO:11 is different from the corresponding amino acid residue of the native sequence (see page 10 of specification).

<220>
<221> MISC_FEATURE
<222> (103)..(103)
<223> Each "Xaa" independently represents a naturally occurring amino acid residue except Cys, with the proviso that at least one "Xaa" in SEQ ID NO:11 is different from the corresponding amino acid residue of the native sequence (see page 10 of specification).

<220>
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<222> (112)..(112)
<223> Each "Xaa" independently represents a naturally occurring amino acid residue except Cys, with the proviso that at least one "Xaa" in SEQ ID NO:11 is different from the corresponding amino acid residue of the native sequence (see page 10 of specification).

<220>
<221> MISC_FEATURE
<222> (114)..(114)
<223> Each "Xaa" independently represents a naturally occurring amino acid residue except Cys, with the proviso that at least one "Xaa" in SEQ ID NO:11 is different from the corresponding amino acid residue of the native sequence (see page 10 of specification).

<220>
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<222> (116)..(121)
<223> Each "Xaa" independently represents a naturally occurring amino acid residue except Cys, with the proviso that at least one "Xaa" in SEQ ID NO:11 is different from the corresponding amino acid residue of the native sequence (see page 10 of specification).

<220>
<221> MISC_FEATURE
<222> (135)..(135)
<223> Each "Xaa" independently represents a naturally occurring amino acid residue except Cys, with the proviso that at least one "Xaa" in SEQ ID NO:11 is different from the corresponding amino acid residue of the native sequence (see page 10 of specification).

<220>
<221> MISC_FEATURE
<222> (137)..(137)
<223> Each "Xaa" independently represents a naturally occurring amino acid residue except Cys, with the proviso that at least one "Xaa" in SEQ ID NO:11 is different from the corresponding amino acid residue of the native sequence (see page 10 of specification).

<220>
<221> MISC_FEATURE
<222> (140)..(142)
<223> Each "Xaa" independently represents a naturally occurring amino acid residue except Cys, with the proviso that at least one "Xaa" in SEQ ID NO:11 is different from the corresponding amino acid residue of the native sequence (see page 10 of specification).

<220>
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<222> (147)..(147)
<223> Each "Xaa" independently represents a naturally occurring amino acid residue except Cys, with the proviso that at least one "Xaa" in SEQ ID NO:11 is different from the corresponding amino acid residue of the native sequence (see page 10 of specification).

<220>
<221> MISC_FEATURE
<222> (159)..(159)
<223> Each "Xaa" independently represents a naturally occurring amino acid residue except Cys, with the proviso that at least one "Xaa" in SEQ ID NO:11 is different from the corresponding amino acid residue of the native sequence (see page 10 of specification).

<400> 11

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Ala Asp Arg Glu Arg Ser Ile Xaa Asp Phe Cys Leu Val Ser Lys Val
1               5                   10                  15

Xaa Gly Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Trp Trp Tyr Asn Val Thr
            20                  25                  30

Asp Gly Ser Cys Gln Leu Phe Xaa Tyr Xaa Gly Cys Xaa Xaa Xaa Ser
        35                  40                  45

Asn Asn Tyr Xaa Thr Lys Glu Glu Cys Leu Lys Lys Cys Ala Thr Xaa
    50                  55                  60

Thr Glu Asn Ala Thr Gly Asp Leu Ser Thr Ser Arg Asn Ala Ala Asp
65                  70                  75                  80

Ser Ser Val Pro Ser Ala Pro Arg Arg Gln Asp Ser Glu His Asp Ser
                85                  90                  95

Ser Asp Met Phe Asn Tyr Xaa Glu Tyr Cys Thr Ala Asn Ala Val Xaa
            100                 105                 110

Gly Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Trp Tyr Phe Asp Val Glu Arg
        115                 120                 125

Asn Ser Cys Asn Asn Phe Xaa Tyr Xaa Gly Cys Xaa Xaa Xaa Lys Asn
    130                 135                 140

Ser Tyr Xaa Ser Glu Glu Ala Cys Met Leu Arg Cys Phe Arg Xaa Gln
145                 150                 155                 160
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Glu Asn Pro Pro Leu Pro Leu Gly Ser Lys Val Val Val Leu Ala Gly
                165   170   175

Ala Val Ser

<210> 12
<211> 393
<212> DNA
<213> Homo sapiens

<220>
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<222> (367)..(367)
<223> "n" is any nucleotide.

<220>
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<222> (384)..(384)
<223> "n" is any nucleotide.

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<222> (390)..(390)
<223> "n" is any nucleotide.

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accgagaacg cagcatccac gacttctgcc tggtgtcgaa ggtggtgggc agattccggg   120

cctccatgcc taggtggtgg tacaatgtca ctgacggatc ctgccagctg tttgtgtatg   180

ggggctgtga cggaaacagc aataattacc tgaccaagga ggagtgcctc aagaaatgtg   240

ccactgtcac agagaatgcc acgggtgacc tggccaccag caggaatgca gcggattcct   300

ctgtcccaag tgctcccaga aggcaggatt cttgaagacc acttcagcga tatgtttcaa   360

ntattgnaag aataattgca ccgncaacgn att   393

<210> 13
<211> 110
<212> PRT

<213> Homo sapiens

<220>
<221> SIGNAL
<222> (1)..(18)
<223>

<400> 13

Pro Gly Arg Phe Ser Pro Gly Trp Asp Arg Cys Ser Ser Leu Gly Ser
1 5 10 15

Trp Pro Ala Asp Arg Glu Arg Ser Ile His Asp Phe Cys Leu Val Ser
20 25 30

Lys Val Val Gly Arg Glu Arg Ala Ser Met Pro Arg Trp Trp Tyr Asn
35 40 45

Val Thr Asp Gly Ser Cys Gln Leu Phe Val Tyr Gly Gly Cys Asp Gly
50 55 60

Asn Ser Asn Asn Tyr Leu Thr Lys Glu Glu Cys Leu Lys Lys Cys Ala
65 70 75 80

Thr Val Thr Glu Asn Ala Thr Gly Asp Leu Ala Thr Ser Arg Asn Ala
85 90 95

Ala Asp Ser Ser Val Pro Ser Ala Pro Arg Arg Gln Asp Ser
100 105 110

<210> 14
<211> 510
<212> DNA
<213> Homo sapiens

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<223> "n" is any nucleotide.

<220>
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<222> (481)..(481)
<223> "n" is any nucleotide.

<220>
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<222> (509)..(509)
<223> "n" is any nucleotide.

<400> 14
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ccacgggtga cctggccacc agcaggaatg cagcggattc ctctgtccca agtctcccag 120

aaggcaggat tctgaagacc actccagcga tatgttcaac tatgaagaat actgcaccgc 180

caacgcagtc actgggcctt gccgtgcatc cttcccacgc tggtactttg acgtggagag 240

gaactcctgc aataacttca tctatggagg ctgccggggc aataagaaca gctaccgctc 300

tgaggaggcc tgcatgctcc gctgcttccg ccagcaggag aatcctcccc tgccccttgg 360

ctcaaaggtg gtggttctgg ccggggctgt ttcgtgatgg tgttgatcct tttcctgggg 420

agcntccatg gtcttactga ttccgggtgg caaggaggaa ccaggagcgt gccctgcgga 480

ncgtctggag cttcggagat gacaagggnt 510

<210> 15
<211> 20
<212> PRT
<213> Homo sapiens

<400> 15

Leu Pro Asp Gln Gly Gly Val Pro Gln Glu Met Cys His Cys His Arg
1 5 10 15

Glu Cys His Gly
20

<210> 16
<211> 427
<212> DNA
<213> Homo sapiens

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<222> (3)..(3)
<223> "n" is any nucleotide.

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<222> (11)..(12)
<223> "n" is any nucleotide.

<220>

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<222>   (17)..(17)
<223>   "n" is any nucleotide.

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<223>   "n" is any nucleotide.

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<223>   "n" is any nucleotide.

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agaacgcagc atccacgact tctgcctggt gtcgaaggtg gtgggcagat gccgggcctc   120

catgcctagg tggtggtaca atgtcactga cggatcctgc cagctgtttg tgtatggggg   180

ctgtgacgga aacagcaata attacctgac caaggaggag tgcctcaaga aatgtgccac   240

tgtcacagag aatgccacgg gtgacctggc caccagcagg aatgcagcgg attcctctgt   300

cccaagtgct cccagaaggc aggattctga agaccactcc agcgatatgt tcaactatga   360

agaatactgg caccgccaac gcattcactg ggcctgcgtg catccttccc acgctggtac   420

tttgncg   427

<210>   17
<211>   423
<212>   DNA
<213>   Homo sapiens

<220>
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<222>   (6)..(6)
<223>   "n" is any nucleotide.

<220>
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<222>   (401)..(401)
<223>   "n" is any nucleotide.

<220>
<221>   misc_feature
<222>   (407)..(407)
<223>   "n" is any nucleotide.

<400> 17
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ttctgcctgg tgtcgaaggt ggtgggcaga tgccgggcct ccatgcctag gtggtggtac 120

aatgtcactg acggatcctg ccagctgttt gtgtatgggg gctgtgacgg aaacagcaat 180

aattacctga ccaaggagga gtgcctcaag aaatgtgcca ctgtcacaga gaatgccacg 240

ggtgacctgg ccaccagcag gaatgcagcg gattcctctg tcccaagtgc tcccagaagg 300

caggattctg aagaccactc cagcgatatg ttcaactatg aagaatactg caccgccaac 360

gcagtcactg ggccttgcgt ggaatccttt cccacgctgg naatttngac gttgagaagg 420

aac 423

<210> 18
<211> 57
<212> PRT
<213> Unknown

<220>
<223> Kunitz-like domain of tissue factor pathway inhibitor precursor 1.

<400> 18

His Ser Phe Cys Ala Phe Lys Ala Asp Asp Gly Pro Cys Lys Ala Ile
1 5 10 15

Met Lys Arg Phe Phe Phe Asn Ile Phe Thr Arg Gln Cys Glu Glu Phe
20 25 30

Ile Tyr Gly Gly Cys Glu Gly Asn Gln Asn Arg Phe Glu Ser Leu Glu
35 40 45

Glu Cys Lys Lys Met Cys Thr Arg Asp
50 55

<210> 19
<211> 57
<212> PRT
<213> Unknown

<220>
<223> Kunitz-like domain of tissue factor pathway inhibitor precursor 1.

<400> 19

Pro Asp Phe Cys Phe Leu Glu Glu Asp Pro Gly Ile Cys Arg Gly Tyr
1 5 10 15

Ile Thr Arg Tyr Phe Tyr Asn Asn Gln Thr Lys Gln Cys Glu Arg Phe
20 25 30

Lys Tyr Gly Gly Cys Leu Gly Asn Met Asn Asn Phe Glu Thr Leu Glu
35 40 45

Glu Cys Lys Asn Ile Cys Glu Asp Gly
50 55

<210> 20
<211> 57
<212> PRT
<213> Unknown

<220>
<223> Kunitz-like domain of tissue factor pathway inhibitor precursor.

<400> 20

Pro Ser Trp Cys Leu Thr Pro Ala Asp Arg Gly Leu Cys Arg Ala Asn
1 5 10 15

Glu Asn Arg Phe Tyr Tyr Asn Ser Val Ile Gly Lys Cys Arg Pro Phe
20 25 30

Lys Tyr Ser Gly Cys Gly Gly Asn Glu Asn Asn Phe Thr Ser Lys Gln
35 40 45

Glu Cys Leu Arg Ala Cys Lys Lys Gly
50 55

<210> 21
<211> 57
<212> PRT
<213> Unknown

<220>
<223> Kunitz-like domain of tissue factor pathway inhibitor precursor 2.

<400> 21

Ala Glu Ile Cys Leu Leu Pro Leu Asp Tyr Gly Pro Cys Arg Ala Leu
1 5 10 15

Leu Leu Arg Tyr Tyr Tyr Arg Tyr Arg Thr Gln Ser Cys Arg Gln Phe
20 25 30

Leu Tyr Gly Gly Cys Glu Gly Asn Ala Asn Asn Phe Tyr Thr Trp Glu
35 40 45

Ala Cys Asp Asp Ala Cys Trp Arg Ile
50 55

<210> 22
<211> 57
<212> PRT
<213> Unknown

<220>
<223> Kunitz-like domain of tissue factor pathway inhibitor precursor 2.

<400> 22

Pro Ser Phe Cys Tyr Ser Pro Lys Asp Glu Gly Leu Cys Ser Ala Asn
1 5 10 15

Val Thr Arg Tyr Tyr Phe Asn Pro Arg Tyr Arg Thr Cys Asp Ala Phe
20 25 30

Thr Tyr Thr Gly Cys Gly Asn Asn Asp Asn Asn Phe Val Ser Arg Glu
35 40 45

Asp Ser Lys Arg Ala Cys Ala Lys Ala
50 55

<210> 23
<211> 57
<212> PRT
<213> Unknown

<220>
<223> Kunitz-like domain of amyloid precursor protein homologue.

<400> 23

Lys Ala Val Cys Ser Gln Glu Ala Met Thr Gly Pro Cys Arg Ala Val
1 5 10 15

Met Pro Arg Thr Thr Phe Asp Leu Ser Lys Gly Lys Cys Val Arg Phe
20 25 30

Ile Thr Gly Gly Cys Gly Gly Asn Arg Asn Asn Phe Glu Ser Glu Asp
35 40 45

Tyr Cys Met Ala Val Cys Lys Ala Met
    50   55

<210> 24
<211> 58
<212> PRT
<213> Unknown

<220>
<223> Kunitz-like domain of aprotinin.

<400> 24

Arg Pro Asp Phe Cys Leu Glu Pro Pro Tyr Thr Gly Pro Cys Lys Ala
1   5   10   15

Arg Ile Ile Arg Tyr Phe Tyr Asn Ala Lys Ala Gly Leu Cys Gln Thr
            20   25   30

Phe Val Tyr Gly Gly Cys Arg Ala Lys Arg Asn Asn Phe Lys Ser Ala
        35   40   45

Glu Asp Cys Met Arg Thr Cys Gly Gly Ala
    50   55

<210> 25
<211> 51
<212> PRT
<213> Unknown

<220>
<223> Kunitz-like domain of inter-alpha-trypsin inhibitor precursor.

<400> 25

Cys Gln Leu Gly Tyr Ser Ala Gly Pro Cys Met Gly Met Thr Ser Arg
1   5   10   15

Tyr Phe Tyr Asn Gly Thr Ser Met Ala Cys Glu Thr Phe Gln Tyr Gly
            20   25   30

Gly Cys Met Gly Asn Gly Asn Asn Phe Val Thr Glu Lys Glu Cys Leu
        35   40   45

Gln Thr Cys
    50

<210> 26

<211> 57
<212> PRT
<213> Unknown

<220>
<223> Kunitz-like domain of inter-alpha-trypsin inhibitor precursor.

<400> 26

Val Ala Ala Cys Asn Leu Pro Ile Val Arg Gly Pro Cys Arg Ala Phe
1   5   10   15

Ile Gln Leu Trp Ala Phe Asp Ala Val Lys Gly Lys Cys Val Leu Phe
            20   25   30

Pro Tyr Gly Gly Cys Gln Gly Asn Gly Asn Lys Phe Tyr Ser Glu Lys
        35   40   45

Glu Cys Arg Glu Tyr Cys Gly Val Pro
    50   55

<210> 27
<211> 57
<212> PRT
<213> Unknown

<220>
<223> Kunitz-like domain of amyloid precursor protein.

<400> 27

Glu Val Cys Cys Ser Glu Gln Ala Glu Thr Gly Pro Cys Arg Ala Met
1   5   10   15

Ile Ser Arg Trp Tyr Phe Asp Val Thr Glu Gly Lys Cys Ala Pro Phe
            20   25   30

Phe Tyr Gly Gly Cys Gly Gly Asn Arg Asn Asn Phe Asp Thr Glu Glu
        35   40   45

Tyr Cys Met Ala Val Cys Gly Ser Ala
    50   55

<210> 28
<211> 51
<212> PRT
<213> Unknown

<220>

<223> Kunitz-like domain of collagen alpha-3(VI) precursor.

<400> 28

Cys Lys Leu Pro Lys Asp Glu Gly Thr Cys Arg Asp Phe Ile Leu Lys
1   5   10   15

Trp Tyr Tyr Asp Pro Asn Thr Lys Ser Cys Ala Arg Phe Trp Tyr Gly
            20   25   30

Gly Cys Gly Gly Asn Glu Asn Lys Phe Gly Ser Gln Lys Glu Cys Glu
        35   40   45

Lys Val Cys
    50

<210> 29
<211> 57
<212> PRT
<213> Unknown

<220>
<223> Kunitz-like domain of HKI-B9.

<400> 29

Pro Asn Val Cys Ala Phe Pro Met Glu Lys Gly Pro Cys Gln Thr Tyr
1   5   10   15

Met Thr Arg Trp Phe Phe Asn Phe Glu Thr Gly Glu Cys Glu Leu Phe
            20   25   30

Ala Tyr Gly Gly Cys Gly Gly Asn Ser Asn Asn Phe Leu Arg Lys Glu
        35   40   45

Lys Cys Glu Lys Phe Cys Lys Phe Thr
    50   55

<210> 30
<211> 46
<212> DNA
<213> Artificial Sequence

<220>
<223> 5' sense oligonucleotide used in Example 6.

<400> 30
gccaagcttg gataaaagat atgaagaata ctgcaccgcc aacgca   46

<210> 31
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> 3' antisense oligonucleotide used in Example 6.

<400> 31
ggggatcctc actgctggcg gaagcagcgg agcat 35

<210> 32
<211> 206
<212> DNA
<213> Artificial Sequence

<220>
<223> Cloned bikunin cDNA fragment in Example 6.

<400> 32
ccaagcttgg ataaaagata tgaagaatac tgcaccgcca acgcagtcac tgggccttgc 60

cgtgcatcct tcccacgctg gtactttgac gtggagagga actcctgcaa taacttcatc 120

tatggaggct gccggggcaa taagaacagc taccgctctg aggaggcctg catgctccgc 180

tgcttccgcc agcagtgagg atcccc 206

<210> 33
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> 3' PCR primer used to amplify EST R74593.

<400> 33
cgaagcttca tctccgaagc tccagacg 28

<210> 34
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> 5' PCR primer used to amplify EST R74593.

<400> 34
aggatctaga caataattac ctgaccaagg a 31

<210> 35
<211> 37

<212> DNA
<213> Artificial Sequence

<220>
<223> 5' PCR primer used to amplify EST R35464.

<400> 35
ggtctagagg ccgggtccgt ttctcgcctg gctggga 37

<210> 36
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> 5' PCR primer used to amplify EST R34808.

<400> 36
cacctgatcg cgagacccc 19

<210> 37
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Vector specific DNA sequencing primer (SP6).

<400> 37
gatttaggtg acactatag 19

<210> 38
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Vector specific DNA sequencing primer (T7).

<400> 38
taatacgact cactataggg 20

<210> 39
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Gene specific DNA sequencing primer.

<400> 39
ttacctgacc aaggaggagt gc 22

<210> 40
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Gene specific DNA sequencing primer.

<400> 40
aatccgctgc attcctgctg gtg 23

<210> 41
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Gene specific DNA sequencing primer.

<400> 41
cagtcactgg gccttgccgt 20

<210> 42
<211> 105
<212> DNA
<213> Artificial Sequence

<220>
<223> 5' sense oligonucleotide used in Example 5.

<400> 42
gaaggggtaa gcttggataa aagatatgaa gaatactgca ccgccaacgc agtcactggg 60

ccttgccgtg catccttccc acgctggtac tttgacgtgg agagg 105

<210> 43
<211> 129
<212> DNA
<213> Artificial Sequence

<220>
<223> 3' antisense oligonucleotide used in Example 5.

<400> 43
cgcggatccc tactggcgga agcagcggag catgcaggcc tcctcagagc ggtagctgtt 60

cttattgccc cggcagcctc catagatgaa gttattgcag gagttcctct ccacgtcaaa 120

gtaccagcg 129

<210> 44
<211> 207

<212> DNA
<213> Artificial Sequence

<220>
<223> Cloned bikunin fragment in Example 5.

<400> 44
gaaggggtaa gcttggataa aagatatgaa gaatactgca ccgccaacgc agtcactggg 60

ccttgccgtg catccttccc acgctggtac tttgacgtgg agaggaactc ctgcaataac 120

ttcatctatg gaggctgccg gggcaataag aacagctacc gctctgagga ggcctgcatg 180

ctccgctgct tccgccagta gggatcc 207

<210> 45
<211> 248
<212> PRT
<213> Artificial Sequence

<220>
<223> EST derived consensus sequence of human Bikunin (Figs. 4D and 4G).

<220>
<221> SIGNAL
<222> (1)..(23)
<223>

<400> 45

Met Leu Arg Ala Glu Ala Asp Gly Val Ser Arg Leu Leu Gly Ser Leu
1   5   10   15

Leu Leu Ser Gly Val Leu Ala Ala Asp Arg Glu Arg Ser Ile His Asp
            20   25   30

Phe Cys Leu Val Ser Lys Val Val Gly Arg Cys Arg Ala Ser Met Pro
        35   40   45

Arg Trp Trp Tyr Asn Val Thr Asp Gly Ser Cys Gln Leu Phe Val Tyr
    50   55   60

Gly Gly Cys Asp Gly Asn Ser Asn Asn Tyr Leu Thr Lys Glu Glu Cys
65   70   75   80

Leu Lys Lys Cys Ala Thr Val Thr Glu Asn Ala Thr Gly Asp Leu Ala
                85   90   95

Thr Ser Arg Asn Ala Ala Asp Ser Ser Val Pro Ser Ala Pro Arg Arg

100 105 110

Gln Asp Ser Glu Asp His Ser Ser Asp Met Phe Asn Tyr Glu Glu Tyr
115 120 125

Cys Thr Ala Asn Ala Val Thr Gly Pro Cys Arg Ala Ser Phe Pro Arg
130 135 140

Trp Tyr Phe Asp Val Glu Arg Asn Ser Cys Asn Asn Phe Ile Tyr Gly
145 150 155 160

Gly Cys Arg Gly Asn Lys Asn Ser Tyr Arg Ser Glu Glu Ala Cys Met
165 170 175

Leu Arg Cys Phe Arg Gln Gln Glu Asn Pro Pro Leu Pro Leu Gly Ser
180 185 190

Lys Val Val Val Leu Ala Gly Leu Phe Val Met Val Leu Ile Leu Phe
195 200 205

Leu Gly Ala Ser Met Val Tyr Leu Ile Arg Val Ala Arg Arg Asn Gln
210 215 220

Glu Arg Ala Leu Arg Thr Val Trp Ser Ser Gly Asp Asp Lys Glu Gln
225 230 235 240

Leu Val Lys Asn Thr Tyr Val Leu
245

<210> 46
<211> 782
<212> DNA
<213> Homo sapiens

<220>
<221> exon
<222> (61)..(780)
<223>

<400> 46
acctgatcgc gagaccccaa cggctggtgg cgtcgcctgc gcgtctcggc tgagctggcc 60

atg gcg cag ctg tgc ggg ctg agg cgg agc cgg gcg ttt ctc gcc ctg 108
Met Ala Gln Leu Cys Gly Leu Arg Arg Ser Arg Ala Phe Leu Ala Leu
1 5 10 15

```
ctg gga tcg ctg ctc ctc tct ggg gtc ctg gcg gcc gac cga gaa cgc      156
Leu Gly Ser Leu Leu Leu Ser Gly Val Leu Ala Ala Asp Arg Glu Arg
        20                  25                  30

agc atc cac gac ttc tgc ctg gtg tcg aag gtg gtg ggc aga tgc cgg      204
Ser Ile His Asp Phe Cys Leu Val Ser Lys Val Val Gly Arg Cys Arg
    35                  40                  45

gcc tcc atg cct agg tgg tgg tac aat gtc act gac gga tcc tgc cag      252
Ala Ser Met Pro Arg Trp Trp Tyr Asn Val Thr Asp Gly Ser Cys Gln
    50                  55                  60

ctg ttt gtg tat ggg ggc tgt gac gga aac agc aat aat tac ctg acc      300
Leu Phe Val Tyr Gly Gly Cys Asp Gly Asn Ser Asn Asn Tyr Leu Thr
65                  70                  75                  80

aag gag gag tgc ctc aag aaa tgt gcc act gtc aca gag aat gcc acg      348
Lys Glu Glu Cys Leu Lys Lys Cys Ala Thr Val Thr Glu Asn Ala Thr
            85                  90                  95

ggt gac ctg gcc acc agc agg aat gca gcg gat tcc tct gtc cca agt      396
Gly Asp Leu Ala Thr Ser Arg Asn Ala Ala Asp Ser Ser Val Pro Ser
        100                 105                 110

gct ccc aga agg cag gat tct gaa gac cac tcc agc gat atg ttc aac      444
Ala Pro Arg Arg Gln Asp Ser Glu Asp His Ser Ser Asp Met Phe Asn
    115                 120                 125

tat gaa gaa tac tgc acc gcc aac gca gtc act ggg cct tgc cgt gca      492
Tyr Glu Glu Tyr Cys Thr Ala Asn Ala Val Thr Gly Pro Cys Arg Ala
    130                 135                 140

tcc ttc cca cgc tgg tac ttt gac gtg gag agg aac tcc tgc aat aac      540
Ser Phe Pro Arg Trp Tyr Phe Asp Val Glu Arg Asn Ser Cys Asn Asn
145                 150                 155                 160

ttc atc tat gga ggc tgc cgg ggc aat aag aac agc tac cgc tct gag      588
Phe Ile Tyr Gly Gly Cys Arg Gly Asn Lys Asn Ser Tyr Arg Ser Glu
            165                 170                 175

gag gcc tgc atg ctc cgc tgc ttc cgc cag cag gag aat cct ccc ctg      636
Glu Ala Cys Met Leu Arg Cys Phe Arg Gln Gln Glu Asn Pro Pro Leu
        180                 185                 190

ccc ctt ggc tca aag gtg gtg gtt ctg gcg ggg ctg ttc gtg atg gtg      684
Pro Leu Gly Ser Lys Val Val Val Leu Ala Gly Leu Phe Val Met Val
    195                 200                 205

ttg atc ctc ttc ctg gga gcc tcc atg gtc tac ctg atc cgg gtg gca      732
Leu Ile Leu Phe Leu Gly Ala Ser Met Val Tyr Leu Ile Arg Val Ala
    210                 215                 220

cgg agg aac cag gag cgt gcc ctg cgc acc gtc tgg agc ttc gga gat      780
Arg Arg Asn Gln Glu Arg Ala Leu Arg Thr Val Trp Ser Phe Gly Asp
225                 230                 235                 240

ga                                                                   782
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<210> 47
<211> 240
<212> PRT
<213> Homo sapiens

<220>
<221> SIGNAL
<222> (1)..(27)
<223>

<400> 47

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Met Ala Gln Leu Cys Gly Leu Arg Arg Ser Arg Ala Phe Leu Ala Leu
1               5                   10                  15

Leu Gly Ser Leu Leu Leu Ser Gly Val Leu Ala Ala Asp Arg Glu Arg
            20                  25                  30

Ser Ile His Asp Phe Cys Leu Val Ser Lys Val Val Gly Arg Cys Arg
        35                  40                  45

Ala Ser Met Pro Arg Trp Trp Tyr Asn Val Thr Asp Gly Ser Cys Gln
    50                  55                  60

Leu Phe Val Tyr Gly Gly Cys Asp Gly Asn Ser Asn Asn Tyr Leu Thr
65                  70                  75                  80

Lys Glu Glu Cys Leu Lys Lys Cys Ala Thr Val Thr Glu Asn Ala Thr
                85                  90                  95

Gly Asp Leu Ala Thr Ser Arg Asn Ala Ala Asp Ser Ser Val Pro Ser
            100                 105                 110

Ala Pro Arg Arg Gln Asp Ser Glu Asp His Ser Ser Asp Met Phe Asn
        115                 120                 125

Tyr Glu Glu Tyr Cys Thr Ala Asn Ala Val Thr Gly Pro Cys Arg Ala
    130                 135                 140

Ser Phe Pro Arg Trp Tyr Phe Asp Val Glu Arg Asn Ser Cys Asn Asn
145                 150                 155                 160

Phe Ile Tyr Gly Gly Cys Arg Gly Asn Lys Asn Ser Tyr Arg Ser Glu
                165                 170                 175
```

Glu Ala Cys Met Leu Arg Cys Phe Arg Gln Gln Glu Asn Pro Pro Leu
180 185 190

Pro Leu Gly Ser Lys Val Val Val Leu Ala Gly Leu Phe Val Met Val
195 200 205

Leu Ile Leu Phe Leu Gly Ala Ser Met Val Tyr Leu Ile Arg Val Ala
210 215 220

Arg Arg Asn Gln Glu Arg Ala Leu Arg Thr Val Trp Ser Phe Gly Asp
225 230 235 240

<210> 48
<211> 1544
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1358)..(1358)
<223> "n" is any nucleotide.

<220>
<221> exon
<222> (301)..(1056)
<223>

<400> 48
gcacgagttg ggaggtgtag cgcggctctg aacgcgctga gggccgttga gtgtcgcagg 60

cggcgagggc gcgagtgagg agcagaccca ggcatcgcgc gccgagaagg ccgggcgtcc 120

ccacactgaa ggtccggaaa ggcgacttcc gggggctttg gcacctggcg gaccctcccg 180

gagcgtcggc acctgaacgc gaggcgctcc attgcgcgtg cgcgttgagg ggcttcccgc 240

acctgatcgc gagaccccaa cggctggtgg cgtcgcctgc gcgtctcggc tgagctggcc 300

atg gcg cag ctg tgc ggg ctg agg cgg agc cgg gcg ttt ctc gcc ctg 348
Met Ala Gln Leu Cys Gly Leu Arg Arg Ser Arg Ala Phe Leu Ala Leu
1 5 10 15

ctg gga tcg ctg ctc ctc tct ggg gtc ctg gcg gcc gac cga gaa cgc 396
Leu Gly Ser Leu Leu Leu Ser Gly Val Leu Ala Ala Asp Arg Glu Arg
20 25 30

agc atc cac gac ttc tgc ctg gtg tcg aag gtg gtg ggc aga tgc cgg 444
Ser Ile His Asp Phe Cys Leu Val Ser Lys Val Val Gly Arg Cys Arg
35 40 45

gcc tcc atg cct agg tgg tgg tac aat gtc act gac gga tcc tgc cag 492
Ala Ser Met Pro Arg Trp Trp Tyr Asn Val Thr Asp Gly Ser Cys Gln
50 55 60

ctg ttt gtg tat ggg ggc tgt gac gga aac agc aat aat tac ctg acc 540
Leu Phe Val Tyr Gly Gly Cys Asp Gly Asn Ser Asn Asn Tyr Leu Thr
65 70 75 80

aag gag gag tgc ctc aag aaa tgt gcc act gtc aca gag aat gcc acg 588
Lys Glu Glu Cys Leu Lys Lys Cys Ala Thr Val Thr Glu Asn Ala Thr
85 90 95

ggt gac ctg gcc acc agc agg aat gca gcg gat tcc tct gtc cca agt 636
Gly Asp Leu Ala Thr Ser Arg Asn Ala Ala Asp Ser Ser Val Pro Ser
100 105 110

gct ccc aga agg cag gat tct gaa gac cac tcc agc gat atg ttc aac 684
Ala Pro Arg Arg Gln Asp Ser Glu Asp His Ser Ser Asp Met Phe Asn
115 120 125

tat gaa gaa tac tgc acc gcc aac gca gtc act ggg cct tgc cgt gca 732
Tyr Glu Glu Tyr Cys Thr Ala Asn Ala Val Thr Gly Pro Cys Arg Ala
130 135 140

tcc ttc cca cgc tgg tac ttt gac gtg gag agg aac tcc tgc aat aac 780
Ser Phe Pro Arg Trp Tyr Phe Asp Val Glu Arg Asn Ser Cys Asn Asn
145 150 155 160

ttc atc tat gga ggc tgc cgg ggc aat aag aac agc tac cgc tct gag 828
Phe Ile Tyr Gly Gly Cys Arg Gly Asn Lys Asn Ser Tyr Arg Ser Glu
165 170 175

gag gcc tgc atg ctc cgc tgc ttc cgc cag cag gag aat cct ccc ctg 876
Glu Ala Cys Met Leu Arg Cys Phe Arg Gln Gln Glu Asn Pro Pro Leu
180 185 190

ccc ctt ggc tca aag gtg gtg gtt ctg gcg ggg ctg ttc gtg atg gtg 924
Pro Leu Gly Ser Lys Val Val Val Leu Ala Gly Leu Phe Val Met Val
195 200 205

ttg atc ctc ttc ctg gga gcc tcc atg gtc tac ctg atc cgg gtg gca 972
Leu Ile Leu Phe Leu Gly Ala Ser Met Val Tyr Leu Ile Arg Val Ala
210 215 220

cgg agg aac cag gag cgt gcc ctg cgc acc gtc tgg agc tcc gga gat 1020
Arg Arg Asn Gln Glu Arg Ala Leu Arg Thr Val Trp Ser Ser Gly Asp
225 230 235 240

gac aag gag cag ctg gtg aag aac aca tat gtc ctg tgaccgccct 1066
Asp Lys Glu Gln Leu Val Lys Asn Thr Tyr Val Leu
245 250

gtcgccaaga ggactgggga agggagggga gactatgtgt gagctttttt taaatagagg 1126

gattgactcg gatttgagtg atcattaggg ctgaggtctg tttctctggg aggtaggacg 1186

gctgcttcct ggtctggcag ggatgggttt gctttggaaa tcctctagga ggctcctcct 1246

cgcatggcct gcagtctggc agcagccccg agttgtttcc tcgctgatcg atttctttcc 1306

tccaggtaga gttttctttg cttatgttga attccattgc ctccttttct cnatcacaga 1366

agtgatgttg gaatcgtttc ttttgtttgt ctgatttatg gtttttttaa gtataaacaa 1426

aagtttttta ttagcattct gaaagaagga aagtaaaatg tacaagttta ataaaaaggg 1486

gccttcccct ttagaataaa tttccagcat gttgctttca aaaaaaaaaa aaaaaaaa 1544

<210> 49
<211> 252
<212> PRT
<213> Homo sapiens

<220>
<221> SIGNAL
<222> (1)..(27)
<223>

<400> 49

Met Ala Gln Leu Cys Gly Leu Arg Arg Ser Arg Ala Phe Leu Ala Leu
1 5 10 15

Leu Gly Ser Leu Leu Leu Ser Gly Val Leu Ala Ala Asp Arg Glu Arg
20 25 30

Ser Ile His Asp Phe Cys Leu Val Ser Lys Val Val Gly Arg Cys Arg
35 40 45

Ala Ser Met Pro Arg Trp Trp Tyr Asn Val Thr Asp Gly Ser Cys Gln
50 55 60

Leu Phe Val Tyr Gly Gly Cys Asp Gly Asn Ser Asn Asn Tyr Leu Thr
65 70 75 80

Lys Glu Glu Cys Leu Lys Lys Cys Ala Thr Val Thr Glu Asn Ala Thr
85 90 95

Gly Asp Leu Ala Thr Ser Arg Asn Ala Ala Asp Ser Ser Val Pro Ser
100 105 110

Ala Pro Arg Arg Gln Asp Ser Glu Asp His Ser Ser Asp Met Phe Asn
115 120 125

Tyr Glu Glu Tyr Cys Thr Ala Asn Ala Val Thr Gly Pro Cys Arg Ala
    130   135   140

Ser Phe Pro Arg Trp Tyr Phe Asp Val Glu Arg Asn Ser Cys Asn Asn
145   150   155   160

Phe Ile Tyr Gly Gly Cys Arg Gly Asn Lys Asn Ser Tyr Arg Ser Glu
                165   170   175

Glu Ala Cys Met Leu Arg Cys Phe Arg Gln Gln Glu Asn Pro Pro Leu
            180   185   190

Pro Leu Gly Ser Lys Val Val Val Leu Ala Gly Leu Phe Val Met Val
        195   200   205

Leu Ile Leu Phe Leu Gly Ala Ser Met Val Tyr Leu Ile Arg Val Ala
    210   215   220

Arg Arg Asn Gln Glu Arg Ala Leu Arg Thr Val Trp Ser Ser Gly Asp
225   230   235   240

Asp Lys Glu Gln Leu Val Lys Asn Thr Tyr Val Leu
                245   250

<210> 50
<211> 146
<212> PRT
<213> Homo sapiens

<400> 50

Cys Leu Val Ser Lys Val Val Gly Arg Cys Arg Ala Ser Met Pro Arg
1   5   10   15

Trp Trp Tyr Asn Val Thr Asp Gly Ser Cys Gln Leu Phe Val Tyr Gly
            20   25   30

Gly Cys Asp Gly Asn Ser Asn Asn Tyr Leu Thr Lys Glu Glu Cys Leu
        35   40   45

Lys Lys Cys Ala Thr Val Thr Glu Asn Ala Thr Gly Asp Leu Ala Thr
    50   55   60

Ser Arg Asn Ala Ala Asp Ser Ser Val Pro Ser Ala Pro Arg Arg Gln

65 70 75 80

Asp Ser Glu Asp His Ser Ser Asp Met Phe Asn Tyr Glu Glu Tyr Cys
85 90 95

Thr Ala Asn Ala Val Thr Gly Pro Cys Arg Ala Ser Phe Pro Arg Trp
100 105 110

Tyr Phe Asp Val Glu Arg Asn Ser Cys Asn Asn Phe Ile Tyr Gly Gly
115 120 125

Cys Arg Gly Asn Lys Asn Ser Tyr Arg Ser Glu Glu Ala Cys Met Leu
130 135 140

Arg Cys
145

<210> 51
<211> 1530
<212> DNA
<213> Artificial Sequence

<220>
<223> Consensus bikunin sequence of Fig. 4C.

<220>
<221> misc_feature
<222> (46)..(46)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (117)..(117)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (313)..(313)
<223> "n" is any nucleotide.

<400> 51
gcgacctccg cgcgttggga ggtgtagcgc ggctctgaac gcgtgnaggg ccgttgagtg 60

tcgcaggcgg cgagggcgcg agtgaggagc agacccaggc atcgcgcgcc gagaagncgg 120

gcgtccccac actgaaggtc cggaaaggcg acttccgggg gctttggcac ctggcggacc 180

ctcccggagc gtcggcacct gaacgcgagg cgctccattg cgcgtgcgtt tgaggggctt 240

cccgcacctg atcgcgagac cccaacggct ggtggcgtcg ctgcgcgtct cggctgagct 300

ggccatggcg cantgttgcg ggctgaggcg gacggcgttt ctcgcctgct gggatcgctg 360

ctcctctctg gggtcctggc ggccgaccga gaacgcagca tccacgactt ctgcctggtg 420

tcgaaggtgg tgggcagatg ccgggcctcc atgcctaggt ggtggtacaa tgtcactgac 480

ggatcctgcc agctgtttgt gtatgggggc tgtgacggaa acagcaataa ttacctgacc 540

aaggaggagt gcctcaagaa atgtgccact gtcacagaga atgccacggg tgacctggcc 600

accagcagga atgcagcgga ttcctctgtc ccaagtgctc ccagaaggca ggattctgaa 660

gaccactcca gcgatatgtt caactatgaa gaatactgca ccgccaacgc agtcactggg 720

ccttgccgtg catccttccc acgctggtac tttgacgtgg agaggaactc ctgcaataac 780

ttcatctatg gaggctgccg gggcaataag aacagctacc gctctgagga ggcctgcatg 840

ctccgctgct tccgccagca ggagaatcct cccctgcccc ttggctcaaa ggtggtggtt 900

ctggcggggc tgttcgtgat ggtgttgatc ctcttcctgg gagcctccat ggtctacctg 960

atccgggtgg cacggaggaa ccaggagcgt gccctgcgca ccgtctggag ctccggagat 1020

gacaaggagc agctggtgaa gaacacatat gtcctgtgac cgccctgtcg ccaagaggac 1080

tggggaaggg aggggagact atgtgtgagc ttttttttaaa tagagggatt gactcggatt 1140

tgagtgatca ttagggctga ggtctgtttc tctgggaggt aggacggctg cttcctggtc 1200

tggcagggat gggtttgctt tggaaatcct ctaggaggct cctcctcgca tggcctgcag 1260

tctggcagca gccccgagtt gtttcctcgc tgatcgattt ctttcctcca ggtagagttt 1320

tctttgctta tgttgaattc cattgcctct tttctcatca cagaagtgat gttggaatcg 1380

tttcttttgt ttgtctgatt tatggttttt ttaagtataa acaaaagttt tttattagca 1440

ttctgaaaga aggaaagtaa aatgtacaag tttaataaaa aggggccttc ccctttagaa 1500

taaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1530

<210> 52
<211> 170
<212> PRT
<213> Homo sapiens

<400> 52

Ala Asp Arg Glu Arg Ser Ile His Asp Phe Cys Leu Val Ser Lys Val
1 5 10 15

Val Gly Arg Cys Arg Ala Ser Met Pro Arg Trp Trp Tyr Asn Val Thr
20 25 30

Asp Gly Ser Cys Gln Leu Phe Val Tyr Gly Gly Cys Asp Gly Asn Ser
35 40 45

Asn Asn Tyr Leu Thr Lys Glu Glu Cys Leu Lys Lys Cys Ala Thr Val
50 55 60

Thr Glu Asn Ala Thr Gly Asp Leu Ala Thr Ser Arg Asn Ala Ala Asp
65 70 75 80

Ser Ser Val Pro Ser Ala Pro Arg Arg Gln Asp Ser Glu Asp His Ser
85 90 95

Ser Asp Met Phe Asn Tyr Glu Glu Tyr Cys Thr Ala Asn Ala Val Thr
100 105 110

Gly Pro Cys Arg Ala Ser Phe Pro Arg Trp Tyr Phe Asp Val Glu Arg
115 120 125

Asn Ser Cys Asn Asn Phe Ile Tyr Gly Gly Cys Arg Gly Asn Lys Asn
130 135 140

Ser Tyr Arg Ser Glu Glu Ala Cys Met Leu Arg Cys Phe Arg Gln Gln
145 150 155 160

Glu Asn Pro Pro Leu Pro Leu Gly Ser Lys
165 170

<210> 53
<211> 27
<212> PRT
<213> Homo sapiens

<400> 53

Met Ala Gln Leu Cys Gly Leu Arg Arg Ser Arg Ala Phe Leu Ala Leu
1 5 10 15

Leu Gly Ser Leu Leu Leu Ser Gly Val Leu Ala
20 25

<210> 54
<211> 23

<212> PRT
<213> Homo sapiens

<400> 54

Met Leu Arg Ala Glu Ala Asp Gly Val Ser Arg Leu Leu Gly Ser Leu
1 5 10 15

Leu Leu Ser Gly Val Leu Ala
20

<210> 55
<211> 102
<212> DNA
<213> Artificial Sequence

<220>
<223> 5' sense oligonucleotide used for construct #2 in Example 5.

<400> 55
gaaggggtaa gcttggataa aagagaagaa tactgtactg ctaatgctgt tactggtcca 60

tgtagagctt cttttccaag atggtacttt gatgttgaaa ga 102

<210> 56
<211> 129
<212> DNA
<213> Artificial Sequence

<220>
<223> 3' antisense oligonucleotide used for construct #2 in Example 5.

<400> 56
actggatcct cattggcgaa aacatctcaa catacaggct tcttcagatc tgtaagaatt 60

tttattacct ctacaaccac cgtaaataaa attattacaa gaatttcttt caacatcaaa 120

gtaccatct 129

<210> 57
<211> 108
<212> DNA
<213> Artificial Sequence

<220>
<223> 5' sense oligonucleotide used for construct #3 in Example 5.

<400> 57
gaaggggtaa gcttggataa aagaaattac gaagaatact gtactgctaa tgctgttact 60

ggtccatgta gagcttcttt tccaagatgg tactttgatg ttgaaaga 108

<210> 58
<211> 117
<212> DNA
<213> Artificial Sequence

<220>
<223> 5' sense oligonucleotide used for construct #4 in Example 5.

<400> 58
gaaggggtaa gcttggataa aagagatatg tttaattacg aagaatactg tactgctaat   60

gctgttactg gtccatgtag agcttctttt ccaagatggt actttgatgt tgaaaga   117

<210> 59
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Sense oligonucleotide used in PCR in Example 8.

<400> 59
cacctgatcg cgagacccc   19

<210> 60
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Antisense oligonucleotide used in PCR in Example 8.

<400> 60
ctggcggaag cagcggagca tgc   23

<210> 61
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Oligonucleotide used in in vitro mutagenesis in Example 9.

<400> 61
cgcgtctcgg ctgacctggc cctgcagatg gcgcacgtgt gcggg   45

<210> 62
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Oligonucleotide used in in vitro mutagenesis in Example 9.

<400> 62
ctgccccttg gctcaaagta ggaagatctt ccccccgggg gggtggttct ggcggggctg 60

<210> 63
<211> 14
<212> PRT
<213> Homo sapiens

<400> 63

Leu Arg Cys Phe Arg Gln Gln Glu Asn Pro Pro Pro Leu Gly
1 5 10

<210> 64
<211> 20
<212> PRT
<213> Homo sapiens

<400> 64

Ala Asp Arg Glu Arg Ser Ile His Asp Phe Cys Leu Val Ser Lys Val
1 5 10 15

Val Gly Arg Cys
20

<210> 65
<211> 20
<212> PRT
<213> Homo sapiens

<400> 65

Phe Asn Tyr Glu Glu Tyr Cys Thr Ala Asn Ala Val Thr Gly Pro Cys
1 5 10 15

Arg Ala Ser Phe
20

<210> 66
<211> 11
<212> PRT
<213> Homo sapiens

<400> 66

Pro Arg Tyr Val Asp Gly Ser Gln Phe Tyr Gly
1 5 10

<210> 67
<211> 55
<212> PRT
<213> Homo sapiens

<400> 67

Val Val Val Leu Ala Gly Leu Phe Val Met Val Leu Ile Leu Phe Leu
1   5   10   15

Gly Ala Ser Met Val Tyr Leu Ile Arg Val Ala Arg Arg Asn Gln Glu
            20   25   30

Arg Ala Leu Arg Thr Val Trp Ser Ser Gly Asp Asp Lys Glu Gln Leu
        35   40   45

Val Lys Asn Thr Tyr Val Leu
    50   55

<210> 68
<211> 43
<212> PRT
<213> Homo sapiens

<400> 68

Val Val Val Leu Ala Gly Leu Phe Val Met Val Leu Ile Leu Phe Leu
1   5   10   15

Gly Ala Ser Met Val Tyr Leu Ile Arg Val Ala Arg Arg Asn Gln Glu
            20   25   30

Arg Ala Leu Arg Thr Val Trp Ser Phe Gly Asp
        35   40

<210> 69
<211> 55
<212> PRT
<213> Homo sapiens

<400> 69

Val Val Val Leu Ala Gly Leu Phe Val Met Val Leu Ile Leu Phe Leu
1   5   10   15

Gly Ala Ser Met Val Tyr Leu Ile Arg Val Ala Arg Arg Asn Gln Glu
            20   25   30

Arg Ala Leu Arg Thr Val Trp Ser Ser Gly Asp Asp Lys Glu Gln Leu
        35   40   45

Val Lys Asn Thr Tyr Val Leu
    50   55

<210> 70
<211> 213
<212> PRT
<213> Homo sapiens

<400> 70

Ala Asp Arg Glu Arg Ser Ile His Asp Phe Cys Leu Val Ser Lys Val
1   5   10   15

Val Gly Arg Cys Arg Ala Ser Met Pro Arg Trp Trp Tyr Asn Val Thr
            20   25   30

Asp Gly Ser Cys Gln Leu Phe Val Tyr Gly Gly Cys Asp Gly Asn Ser
        35   40   45

Asn Asn Tyr Leu Thr Lys Glu Glu Cys Leu Lys Lys Cys Ala Thr Val
    50   55   60

Thr Glu Asn Ala Thr Gly Asp Leu Ala Thr Ser Arg Asn Ala Ala Asp
65   70   75   80

Ser Ser Val Pro Ser Ala Pro Arg Arg Gln Asp Ser Glu Asp His Ser
                85   90   95

Ser Asp Met Phe Asn Tyr Glu Glu Tyr Cys Thr Ala Asn Ala Val Thr
            100   105   110

Gly Pro Cys Arg Ala Ser Phe Pro Arg Trp Tyr Phe Asp Val Glu Arg
        115   120   125

Asn Ser Cys Asn Asn Phe Ile Tyr Gly Gly Cys Arg Gly Asn Lys Asn
    130   135   140

Ser Tyr Arg Ser Glu Glu Ala Cys Met Leu Arg Cys Phe Arg Gln Gln
145   150   155   160

Glu Asn Pro Pro Leu Pro Leu Gly Ser Lys Val Val Val Leu Ala Gly
                165   170   175

Leu Phe Val Met Val Leu Ile Leu Phe Leu Gly Ala Ser Met Val Tyr
180 185 190

Leu Ile Arg Val Ala Arg Arg Asn Gln Glu Arg Ala Leu Arg Thr Val
195 200 205

Trp Ser Phe Gly Asp
210

<210> 71
<211> 225
<212> PRT
<213> Homo sapiens

<400> 71

Ala Asp Arg Glu Arg Ser Ile His Asp Phe Cys Leu Val Ser Lys Val
1 5 10 15

Val Gly Arg Cys Arg Ala Ser Met Pro Arg Trp Trp Tyr Asn Val Thr
20 25 30

Asp Gly Ser Cys Gln Leu Phe Val Tyr Gly Gly Cys Asp Gly Asn Ser
35 40 45

Asn Asn Tyr Leu Thr Lys Glu Glu Cys Leu Lys Lys Cys Ala Thr Val
50 55 60

Thr Glu Asn Ala Thr Gly Asp Leu Ala Thr Ser Arg Asn Ala Ala Asp
65 70 75 80

Ser Ser Val Pro Ser Ala Pro Arg Arg Gln Asp Ser Glu Asp His Ser
85 90 95

Ser Asp Met Phe Asn Tyr Glu Glu Tyr Cys Thr Ala Asn Ala Val Thr
100 105 110

Gly Pro Cys Arg Ala Ser Phe Pro Arg Trp Tyr Phe Asp Val Glu Arg
115 120 125

Asn Ser Cys Asn Asn Phe Ile Tyr Gly Gly Cys Arg Gly Asn Lys Asn
130 135 140

Ser Tyr Arg Ser Glu Glu Ala Cys Met Leu Arg Cys Phe Arg Gln Gln
145   150   155   160

Glu Asn Pro Pro Leu Pro Leu Gly Ser Lys Val Val Val Leu Ala Gly
                165   170   175

Leu Phe Val Met Val Leu Ile Leu Phe Leu Gly Ala Ser Met Val Tyr
            180   185   190

Leu Ile Arg Val Ala Arg Arg Asn Gln Glu Arg Ala Leu Arg Thr Val
        195   200   205

Trp Ser Ser Gly Asp Asp Lys Glu Gln Leu Val Lys Asn Thr Tyr Val
    210   215   220

Leu
225

<210> 72
<211> 19
<212> PRT
<213> Homo sapiens

<220>
<221> MISC_FEATURE
<222> (9)..(9)
<223> "Xaa" is Ile, Thr, Asn, or Ser.

<220>
<221> MISC_FEATURE
<222> (11)..(11)
<223> "Xaa" is Val, Ala, Glu, or Gly.

<220>
<221> MISC_FEATURE
<222> (17)..(17)
<223> "Xaa" is Ser, Pro, Thr, or Ala.

<220>
<221> MISC_FEATURE
<222> (19)..(19)
<223> "Xaa" is Tyr, His, Asn, or Asp.

<400> 72

Arg Pro Leu Gln Arg Tyr Val Ser Xaa Ile Xaa Arg Ile Ile Ala Pro
1   5   10   15

Xaa Thr Xaa

<210> 73
<211> 108
<212> PRT
<213> Homo sapiens

<400> 73

Pro Gly His Gln Gln Glu Cys Ser Gly Phe Leu Cys Pro Lys Ser Pro
1 5 10 15

Arg Arg Gln Asp Ser Glu Asp His Ser Ser Asp Met Phe Asn Tyr Glu
20 25 30

Glu Tyr Cys Thr Ala Asn Ala Val Thr Gly Pro Cys Arg Ala Ser Phe
35 40 45

Pro Arg Trp Tyr Phe Asp Val Glu Arg Asn Ser Cys Asn Asn Phe Ile
50 55 60

Tyr Gly Gly Cys Arg Gly Asn Lys Asn Ser Tyr Arg Ser Glu Glu Ala
65 70 75 80

Cys Met Leu Arg Cys Phe Arg Gln Gln Glu Asn Pro Pro Leu Pro Leu
85 90 95

Gly Ser Lys Val Val Val Leu Ala Gly Ala Val Ser
100 105

<210> 74
<211> 31
<212> PRT
<213> Homo sapiens

<220>
<221> MISC_FEATURE
<222> (25)..(25)
<223> "Xaa" is Asp or Glu.

<400> 74

Ser Phe Ser Trp Gly Ala Ser Met Val Leu Leu Ile Pro Gly Gly Lys
1 5 10 15

Glu Glu Pro Gly Ala Cys Pro Ala Xaa Arg Leu Glu Leu Arg Arg
20 25 30

<210> 75
<211> 511
<212> DNA
<213> Artificial Sequence

<220>
<223> Corrected version of EST R74593 (see Fig. 3 and page 28).

<220>
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<222> (425)..(425)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (482)..(482)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (510)..(510)
<223> "n" is any nucleotide.

<400> 75
gcaataatta cctgaccaag gaggagtgcc tcaagaaatg tgccactgtc acagagaatg 60

ccacgggtga cctggccacc agcaggaatg cagcggattc ctctgtccca agtgctccca 120

gaaggcagga ttctgaagac cactccagcg atatgttcaa ctatgaagaa tactgcaccg 180

ccaacgcagt cactgggcct tgccgtgcat ccttcccacg ctggtacttt gacgtggaga 240

ggaactcctg caataacttc atctatggag gctgccgggg caataagaac agctaccgct 300

ctgaggaggc ctgcatgctc cgctgcttcc gccagcagga gaatcctccc ctgccccttg 360

gctcaaaggt ggtggttctg gccggggctg tttcgtgatg gtgttgatcc ttttcctggg 420

gagcntccat ggtcttactg attccgggtg gcaaggagga accaggagcg tgccctgcgg 480

ancgtctgga gcttcggaga tgacaagggn t 511

<210> 76
<211> 31
<212> PRT
<213> Artificial Sequence

<220>

<223> Amino acids 184-214 of translation of consensus sequence in Fig. 3.

<220>
<221> MISC_FEATURE
<222> (25)..(25)
<223> "Xaa" is Asp or Glu.

<400> 76

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Ser Phe Ser Trp Gly Ala Ser Met Val Leu Leu Ile Pro Gly Gly Lys
1               5                   10                  15

Glu Glu Pro Gly Ala Cys Pro Ala Xaa Arg Leu Glu Leu Arg Arg
            20                  25                  30
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<210> 77
<211> 312
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (45)..(45)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (49)..(49)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (118)..(118)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (231)..(231)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (305)..(305)
<223> "n" is any nucleotide.

<400> 77

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gcgacctccg cgcgttggga ggtgtagcgc ggctctgaac gcgtngagng gccgttgagt     60

gtcgcaggcg gcgagggcgc gagtgaggag cagacccagg catcgcgcgc cgagaagncg    120
```

ggcgtcccca cactgaaggt ccggaaaggc gacttccggg ggctttggca cctggcggac 180

cctcccggag cgtcggcacc tgaacgcgag gcgctccatt gcgcgtgcgt ntgaggggct 240

tcccgcacct gatcgcgaga ccccaacggc tggtggcgtc gcctgcgcgt ctcggctgag 300

ctggncatgt cg 312

<210> 78
<211> 330
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (117)..(117)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (123)..(123)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (321)..(321)
<223> "n" is any nucleotide.

<400> 78
gcgacctccg cgcgttggga ggtgtagcgc ggctctgaac gcgtgcaggg ccgttgagtg 60

tcgcaggcgg cgagggcgcg agtgaggagc agacccaggc atcgcgcgcc gagaagncgg 120

gcntccccac actgaaggtc cggaaaggcg acttccgggg gctttggcac ctggcggacc 180

ctcccggagc gtggcacctg aacgcgaggc gctccattgc gcgtgcgttt gaggggcttc 240

ccgcacctga tcgcgagacc ccaacggctg gtggcgtcgc ctgcgcgtct cggctgagct 300

ggccatggcg cactgtgcgg ngctgaggcg 330

<210> 79
<211> 283
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (9)..(9)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (11)..(11)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (222)..(222)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (231)..(231)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (262)..(262)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (267)..(274)
<223> "n" is any nucleotide.

<400> 79
ttgagtgtng naggcggcga gggcgcgagt gaggagcaga cccaggcatc gcgcgccgag 60

aaggccgggc gtccccacac tgaaggtccg gaaaggcgac ttccgggggc tttggcacct 120

ggcggaccct cccggagcgt cggcacctga acgcgaggcg ctccattgcg cgtgcgtttg 180

aggggcttcc cgcacctgat cgcgagaccc caacggctgg tngcgtcgct ncgcgtctcg 240

gctgagcttg gccatggcgc antgttncgg gctnaggcgg acg 283

<210> 80
<211> 423
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (44)..(44)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (46)..(46)

<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (76)..(76)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (114)..(114)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (187)..(187)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (268)..(268)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (309)..(309)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (317)..(317)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (332)..(332)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (370)..(370)
<223> "n" is any nucleotide.

<400> 80
ggcgacctcc gcgcgttggg aggtgtagcg cgctctgaac gggnangggc cgttgagtgt 60

cgcaggcggc agggcngagt gaggagcaga cccaggcatc gcgcgccgag aagncgggcg 120

tccccacact gaaggtccgg aaaggcgact tccgggggct ttggcacctg gcggacgtcc 180

cggagcnggc acctgaacgc gaggcgctcc attgcgcgtg cgtttgaggg gcttcccgca 240

cctgatcgcg agaccccaac ggctggtngc gtcgctggcg cgttctcggc tgagctggcc 300

atggcgcant gttgcgngct gaggcggacc gncgtttttc ttcgccttgc tgggattcgc 360

ttgcttcctn tctgggggtt cctgggcggc cgaccgagaa cgcagcatcc aagaattttt 420

gcc 423

<210> 81
<211> 344
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (35)..(35)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (148)..(148)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (235)..(235)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (261)..(261)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (272)..(272)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (293)..(293)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (300)..(300)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (313)..(313)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (320)..(320)
<223> "n" is any nucleotide.

<400> 81
ggaggagcag acccaggcat cgcgcgccga gaagncgggc gtccccacac tgaaggtccg 60

gaaaggcgac ttccgggggc tttggcacct ggcggaccct cccggagcgt cggcacctga 120

acgcgaggcg ctccattgcg cgtgcgtntg gaggggcttc ccgcacctga tcgcgagacc 180

ccaacggctg gtgggcgtcg ctgcgcgtct tcggctgagc tgggccatgg cgcanttgtt 240

gcgggctgag gcggacgcgg ncgtttttc gnccttgctg ggattcgttg ttnctctctn 300

ggggttctgg ggnggccgan cgagaacgca agcattcacg attt 344

<210> 82
<211> 253
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (56)..(56)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (137)..(137)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (145)..(145)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (159)..(159)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (233)..(233)
<223> "n" is any nucleotide.

<400> 82
ggaccctccc ggagcgtcgg cacctgaacg cgaggcctcc attgcggtgc gtgtgnaggg 60

gcttcccgca cctgatcgcg agaccccaac ggctggtggc gtcgctgcgc gtctcggctg 120

agctggccat ggcgcantgt tgcgngctga ggcggcggnc gttttctcgc ctgctgggat 180

cgctgctcct ctctggggtc ctggcggccg accgagaacg cagcatccac ganttcttcc 240

tggtgttcga agg 253

<210> 83
<211> 419
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (20)..(20)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (26)..(26)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (95)..(95)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (292)..(292)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (313)..(315)
<223> "n" is any nucleotide.

<400> 83
ttagcgcggc tctgaacgcn agaagnggcc gttgagtgtc gcaggcggcg agggcgcgag 60

tgaggagcag acccaggcat cgcgcgccga gaagncgggc gtccccacac tgaaggtccg 120

gaaaggcgac ttccgggggc tttggcacct ggcggaccct cccggagcgt cggcacctga 180

acgcgaggcg ctccattgcg cgtgcgtttg aggggcttcc cgcacctgat cgcgagaccc 240

caacggctgg tggcgtcgcc tgcgcgtctc ggctgagctg gccatggcgc antggtgcgg 300

gcttgaggcg gannngccgt ttctcgcctg ctgggatcgc tgctcctctc tggggtcctg 360

gcggccgacc gagaacgcag catccacgac ttctgcctgg tgtcgaaggt ggtgggcag 419

<210> 84
<211> 477
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (27)..(27)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (139)..(139)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (223)..(223)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (232)..(232)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (302)..(302)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (310)..(310)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (322)..(322)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (328)..(328)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (357)..(357)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (375)..(375)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (392)..(392)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (398)..(398)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (405)..(405)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (427)..(427)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (437)..(437)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (449)..(449)
<223> "n" is any nucleotide.

<220>

<221> misc_feature
<222> (458)..(458)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (474)..(474)
<223> "n" is any nucleotide.

<400> 84
agacccaggc atcgcgcgcc gagaagncgg gcgtccccac actgaaggtc cggaaaggcg 60

acttccgggg gctttggcac ctggcggacc ctcccggagc gtcggcacct gaacgcgagg 120

cctccattgc cgtgcgttng aggggcttcc cggaacttga tcgcgagacc ccaacggctg 180

gtggcgtcgc tgcgcgtcct cggctgagct ggccatggcg cantggtgcc gngctgaggc 240

cggagggccg gtttctcgcc ttgctgggat cgctgctcct ctctggggtc ctggcggccg 300

ancgaagaan gcagcaatcc angaattnct gcctggtgtt cgaaagttgg tgggcanatt 360

ccggggcctt catgnctaag gttggttggt anaatgtnaa ttaangattc ttgcaactgt 420

ttgtgtnatt ggggctntta aacggaaana caataatnac ctgaccaaag aagnaat 477

<210> 85
<211> 393
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (361)..(361)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (367)..(367)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (384)..(384)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (390)..(390)
<223> "n" is any nucleotide.

<400> 85
ggccgggtcg tttctcgcct ggctgggatc gctgctcctc tctggggtcc tggccggccg   60

accgagaacg cagcatccac gacttctgcc tggtgtcgaa ggtggtgggc agattccggg   120

cctccatgcc taggtggtgg tacaatgtca ctgacggatc ctgccagctg tttgtgtatg   180

ggggctgtga cggaaacagc aataattacc tgaccaagga ggagtgcctc aagaaatgtg   240

ccactgtcac agagaatgcc acgggtgacc tggccaccag caggaatgca gcggattcct   300

ctgtcccaag tgctcccaga aggcaggatt cttgaagacc acttcagcga tatgtttcaa   360

ntattgnaag aataattgca ccgncaacgn att   393

<210> 86
<211> 428
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (3)..(3)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (11)..(12)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
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<223> "n" is any nucleotide.

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<223> "n" is any nucleotide.

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<222> (425)..(425)
<223> "n" is any nucleotide.

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agaacgcagc atccacgact tctgcctggt gtcgaaggtg gtgggcagat gccgggcctc   120

catgcctagg tggtggtaca atgtcactga cggatcctgc cagctgtttg tgtatggggg 180

ctgtgacgga aacagcaata attacctgac caaggaggag tgcctcaaga aatgtgccac 240

tgtcacagag aatgccacgg gtgacctggc caccagcagg aatgcagcgg attcctctgt 300

cccaagtgct cccagaaggc aggattctga agaccactcc agcgatatgt tcaactatga 360

agaatactgg caccgccaac gcattcactg ggcctgcgtg catccttccc acgctggtac 420

tttgncgt 428

<210> 87
<211> 425
<212> DNA
<213> Homo sapiens

<220>
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<222> (7)..(7)
<223> "n" is any nucleotide.

<220>
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<222> (403)..(403)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (409)..(409)
<223> "n" is any nucleotide.

<400> 87
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cttctgcctg gtgtcgaagg tggtgggcag atgccgggcc tccatgccta ggtggtggta 120

caatgtcact gacggatcct gccagctgtt tgtgtatggg ggctgtgacg gaaacagcaa 180

taattacctg accaaggagg agtgcctcaa gaaatgtgcc actgtcacag agaatgccac 240

gggtgacctg gccaccagca ggaatgcagc ggattcctct gtcccaagtg ctcccagaag 300

gcaggattct gaagaccact ccagcgatat gttcaactat gaagaatact gcaccgccaa 360

cgcagtcact ggggccttgc gtggaatcct ttcccacgct ggnaatttng acgttgagaa 420

ggaac 425

<210> 88
<211> 343
<212> DNA

<213>   Homo sapiens

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<223>   "n" is any nucleotide.

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<223>   "n" is any nucleotide.

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<223>   "n" is any nucleotide.

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<222>   (232)..(232)
<223>   "n" is any nucleotide.

<220>
<221>   misc_feature
<222>   (245)..(245)
<223>   "n" is any nucleotide.

<220>
<221>   misc_feature
<222>   (309)..(309)
<223>   "n" is any nucleotide.

<220>
<221>   misc_feature
<222>   (318)..(318)
<223>   "n" is any nucleotide.

<400>   88
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tnccactgtc acagagaatg ccacgggtga cctggccacc agcaggaatg cagcggattc   120

ctctgtccca agtgctccca gaaggcagga ttctgaagac cactccagcg atatgttcaa   180

ctatgaagaa tactgcaccg ccaacgcagt ncactgggcc ttgcgtggca tnccttccca   240

cgctngtact ttgacgtgga gaggaactcc tggcaataac ttcatctatg gaggcttgcc   300

ggggcaatna agaacagntt accgctcttt aggaggcctg cat   343

<210> 89
<211> 510
<212> DNA
<213> Homo sapiens

<220>
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<222> (424)..(424)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (481)..(481)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (509)..(509)
<223> "n" is any nucleotide.

<400> 89
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ccacgggtga cctggccacc agcaggaatg cagcggattc ctctgtccca agtctcccag 120

aaggcaggat tctgaagacc actccagcga tatgttcaac tatgaagaat actgcaccgc 180

caacgcagtc actgggcctt gccgtgcatc cttcccacgc tggtactttg acgtggagag 240

gaactcctgc aataacttca tctatggagg ctgccggggc aataagaaca gctaccgctc 300

tgaggaggcc tgcatgctcc gctgcttccg ccagcaggag aatcctcccc tgccccttgg 360

ctcaaaggtg gtggttctgg ccggggctgt ttcgtgatgg tgttgatcct tttcctgggg 420

agcntccatg gtcttactga ttccgggtgg caaggaggaa ccaggagcgt gccctgcgga 480

ncgtctggag cttcggagat gacaagggnt 510

<210> 90
<211> 293
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (257)..(257)
<223> "n" is any nucleotide.

<400> 90
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tgccccttgg ctcaaaggtg gtggttctgg cggggctgtt cgtgatggtg ttgatcctct 120

tcctggggag cctccatggt ctacctgatc cgggtggcac ggagggaacc agggagcgtg 180

ccctgcgcac cgtctgggag ctccggagat gacaagggag cagctgggtg aagaacacat 240

atgttcctgt tgaccgncct gttcgccaag aggattgggg gaagggaggg gga 293

<210> 91
<211> 282
<212> DNA
<213> Homo sapiens

<220>
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<222> (19)..(19)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (147)..(147)
<223> "n" is any nucleotide.

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gggctgttcg tgatggtgtt gatccctcct tcccgggagc ctcccatggt cctaccctga 120

tccgggtggc acggaggaac ccagganc gt gccctgcgca ccgtctggag ctccggagat 180

gacaaggagc agctggtgaa gaacacatat gtcctgtgac cgccctgtcg ccaagaggac 240

tggggaaggg aggggagact atgtgtgagc ttttttaaa ta 282

<210> 92
<211> 390
<212> DNA
<213> Homo sapiens

<220>
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<222> (33)..(33)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (55)..(55)
<223> "n" is any nucleotide.

<220>

<221> misc_feature
<222> (118)..(118)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (213)..(213)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (228)..(228)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (259)..(259)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (267)..(267)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (324)..(324)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (333)..(333)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (344)..(344)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (387)..(387)
<223> "n" is any nucleotide.

<400> 92
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gctctgagga ggcctgcgtg ctccgctgct tccgctgtgt gttctcttcc aggccagcag   120

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gagaatcctc ccctgcccct tggctcaaag gtggtggttc tggcggggct gttcgtgatg    180

gtgttgatcc tcttcctggg agcctccatg gtntacctga tccgggtngc acggaggaac    240

cagggagcgt gccctgcgna ccgtctngga gctccggaga tgacaaggag cagctggtga    300

agaacacata tgtcctgtga ccgncctgtt cgncaagagg actnggggaa aggggagggg    360

agattatgtg ttgagttttt tttaaantag                                     390


<210>  93
<211>  406
<212>  DNA
<213>  Homo sapiens

<220>
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<222>  (306)..(306)
<223>  "n" is any nucleotide.


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<222>  (328)..(328)
<223>  "n" is any nucleotide.


<220>
<221>  misc_feature
<222>  (342)..(342)
<223>  "n" is any nucleotide.


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<221>  misc_feature
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<223>  "n" is any nucleotide.


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<221>  misc_feature
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<223>  "n" is any nucleotide.


<220>
<221>  misc_feature
<222>  (377)..(377)
<223>  "n" is any nucleotide.


<220>
<221>  misc_feature
<222>  (382)..(382)
<223>  "n" is any nucleotide.
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<220>
<221> misc_feature
<222> (402)..(402)
<223> "n" is any nucleotide.

<400> 93
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tccgctgctt ccgccagcag gagaatcctc ccctgcccct tggctcaaag gtggtggttc 120

tggcggggct gttcgtgatg gtgttgatcc tcttcctggg agcctccatg gtctacctga 180

tccgggtggc acggaggaac cagggagcgt gccctgcgca ccgtctggga gctccggaga 240

tgacaaggga gcagctggtg aagaacacat atgttcctgt tgaccgccct gttcgccaag 300

agggantggg ggaaggggag ggggaganta ttgttgttga gnttttttt aaaattagga 360

ggggnttgan ttcgggnttt tnagttgatc catttagggg gntgag 406

<210> 94
<211> 360
<212> DNA
<213> Homo sapiens

<220>
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<222> (1)..(1)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (142)..(142)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (339)..(339)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (347)..(347)
<223> "n" is any nucleotide.

<400> 94
nggccttgca gtgctccgct gcttccgcca gcaggagaat cctcccctgc cccttggctc 60

aaaggtggtg gttctggcgg ggctgttcgt gatggtgttg atcctcttcc tgggagcctc 120

catggtctac ctgatccggg tngcacggag gaaccaggag cgtgccctgc gcaccgtctg 180

gagctccgga gatgacaagg agcagctggt gaagaacaca tatgtcctgt gaccgccctg 240

tcgccaagag gactggggaa gggaggggag actatgtgtg agcttttttt aaatagaggg 300

attgactcgg atttgagtga tcattagggc tgaggtctnt ttctctngga ggtaggacga 360

<210> 95
<211> 438
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (334)..(334)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (368)..(368)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (376)..(376)
<223> "n" is any nucleotide.

<400> 95
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gggtggcacg gaggaaccag gagcgtgccc tgcgcaccgt ctggagctcc ggagatgaca 120

aggagcagct ggtgaagaac acatatgtcc tgtgaccgcc ctgtcgccaa gaggactggg 180

gaagggaggg gagactatgt gtgagctttt tttaaataga gggattgact cggatttgag 240

tgatcattag ggctgaggtc tgtttctctg ggaggtagga cggctgcttc ctgggtcttg 300

gcagggatgg ggtttgcttt gggaaatcct cttnggaggc tcctccttcg catgggcctt 360

gcagtctngg cagcancccc cgagtttttt tccttcgctg atccgatttc ttttcctcca 420

ggtaagaatt tttctttt 438

<210> 96
<211> 448
<212> DNA
<213> Homo sapiens

<220>

<221> misc_feature
<222> (108)..(108)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (261)..(261)
<223> "n" is any nucleotide.

<400> 96
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ggtgaagaac acatatgtcc tgtgaccgcc ctgtcgccaa gaggactngg gaagggaggg 120

gagactatgt gtgagctttt tttaaataga gggattgact cggatttgag tgatcattag 180

ggctgaggtc tgtttctctg ggaggtagga cggctgcttc ctggtctggc agggatgggt 240

ttgctttgga gaatcctcta ngaggctcct cctcgcatgg cctgcagtct ggcagcagcc 300

ccgagttgtt tcctcgctga tcgatttctt tcctccaggt agagttttct ttgcttatgt 360

tgaattccat tgcctctttt ctcatcacag aagtgatgtt ggaatcgttt cttttgtttt 420

gtctgattta tgggtttttt ttaagtat 448

<210> 97
<211> 331
<212> DNA
<213> Homo sapiens

<220>
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<222> (20)..(20)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (30)..(30)
<223> "n" is any nucleotide.

<400> 97
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atgggtttgc tttggaaatc ctctaggagg ctcctcctcg catggcctgc agttctgcag 120

cagccccgag ttgtttcctc gctgatcgat ttctttcctc caggtagagt tttctttgct 180

tatgttgaat tccattgcct cttttctcat cacagaagtg atgttggaat cgtttctttt 240

gtttgtctga tttatggttt ttttaagtat aaacaaaagt tttttattag cattctgaaa 300

gaaggaaagt aaaatgtaca agtttaataa a 331

<210> 98
<211> 373
<212> DNA
<213> Homo sapiens

<220>
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<222> (45)..(45)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (102)..(102)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (105)..(105)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (159)..(159)
<223> "n" is any nucleotide.

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<221> misc_feature
<222> (174)..(174)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (213)..(213)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (337)..(337)
<223> "n" is any nucleotide.

<400> 98
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gctgctcccc tggtctggca gggatgggtt tgctttggaa anccnctagg aggctcctcc 120

tcgcatggcc tgcagtctgg cagcagcccc gagttgttnc ctcgctgatc gatntctttc 180

ccccaggtag agttttcttt gcttatgttg aantccattg cctcttttct catcacagaa 240

gtgatgttgg aatcgtttct tttgtttgtc tgatttatgg tttttttaag tataaacaaa 300

agtttttat tagcattctg aaagaaggaa agtaaantgt acaagtttaa taaaaagggg 360

ccttcccctt taa 373

<210> 99
<211> 380
<212> DNA
<213> Homo sapiens

<400> 99
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ggctgcttcc tggtctggca gggatgggtt tgctttggaa atcctctagg aggctcctcc 120

ttcgcatggc ctgcagtctg gcagcagccc cgagttgttt cctcgctgat cgatttcttt 180

cctccaggta gagttttctt tgcttatgtt gaattccatt gcctcttttc tcatcacaga 240

agtgatgttg gaatcgtttc ttttgtttgt ctgatttatg gtttttttaa gtataaacaa 300

aagtttttta ttagcattct gaaagaagga aagtaaaatg tacaagttta ataaaaaggg 360

gccttcccct ttagaataaa 380

<210> 100
<211> 320
<212> DNA
<213> Homo sapiens

<220>
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<222> (304)..(304)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (309)..(309)
<223> "n" is any nucleotide.

<400> 100
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agtctggcag cagcccgagt tgtttcctcg ctgatcgatt tctttcctcc aggtagagtt 120

ttctttgctt atgttgaatt ccattgcctc ttttctcatc acagaagtga tgttggaatc 180

gtttcttttg tttgtctgat ttatggtttt tttaagtata aacaaaagtt ttttattagc 240

attctgaaag aaggaaagta aaatgtacaa gtttaataaa aaggggcctt cccctttagg 300

aatnaaaana aaaaagggtg 320

<210> 101
<211> 397
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (24)..(24)
<223> "n" is any nucleotide.

<400> 101
gattgactcg gatttgagtg atcnattagg gctgaggtct gtttctctgg gaggtaggac 60

ggctgcttca tggtctggca gggatgggtt tgctttggaa atcctctagg aggctcctcc 120

tcgcatggcc tgcagtctgc agcagccccg agttgtttcc tcgctgatcg atttctttcc 180

tccaggtaga gttttctttg cttatgttga attccattgc ctcttttctc atcacagaag 240

tgatgttgga atcgtttctt ttgtttgtct gatttatggt ttttttaagt ataaacaaaa 300

gtttttttatt agcattctga aagaaggaaa gtaaaatgta caagtttaat aaaaaggggc 360

cttccccttt agaataaatt tcagcatgtg ctttcaa 397

<210> 102
<211> 289
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (61)..(61)
<223> "n" is any nucleotide.

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<222> (74)..(74)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (122)..(122)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (184)..(184)

<223> "n" is any nucleotide.

<400> 102
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ncgatttctt tccnccaggt agagttttct ttgcttatgt tgaattccat tgcctctttt 120

cncatcacag aagtgatgtt ggaatcgttt cttttgtttg tctgatttat ggttttttta 180

agtntaaaca aaagtttttt attagcattc tgaaagaagg aaagtaaaat gtacaagttt 240

aataaaaagg ggccttcccc tttagaataa aaaaaaaaaa aaaaaaaaa 289

<210> 103
<211> 311
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (7)..(7)
<223> "n" is any nucleotide.

<400> 103
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gttgtttcct cgctgatcgg atttctttcc tccaggtaga gttttctttg cttatgttga 120

attccattgc ctcttttctc atcacagaag tgatgttgga atcgtttctt ttgtttgtct 180

gatttatggt ttttttaagt ataaacaaaa gtttttttatt agcattctga aagaaggaaa 240

gtaaaatgta caagtttaat aaaaaggggc cttccccttt agaataaatt tcagcatgtg 300

ctttcaaaaa a 311

<210> 104
<211> 338
<212> DNA
<213> Homo sapiens

<220>
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<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (67)..(67)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (136)..(136)
<223> "n" is any nucleotide.

<400> 104
ggtctggcag ggatgggttt gcctttggaa ancctctagg aggctcctcc tcgcatggcc 60

F1 Cont'd

tgcagtnctg gcagcagacc ccgagttgtt tcctcgctga tcgatttctt tacccccagg 120

tagagttttc ctttgnctta tgttgaattc cattgcctct tttactcatc acagaagtga 180

tgttggaatc gtttcttttg tttgtctgat ttatggtttt tttaagtata aacaaaagtt 240

ttttattagc attctgaaag aaggaaagta aaatgtacaa gtttaataaa aaggggcctt 300

cccctttaga ataaaaaaaa aaaaaaaaaa aaaaaaaa 338

<210> 105
<211> 343
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (13)..(13)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (19)..(19)
<223> "n" is any nucleotide.

<220>
<221> misc_feature
<222> (107)..(107)
<223> "n" is any nucleotide.

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gcatggcctg cagtctggca gcagccccga gttgtttcct cgctgancga tttctttcct 120

ccaggtagag ttttctttgc ttatgttgaa ttccattgcc tcttttctca tcacagaagt 180

gatgttggaa tcgtttcttt tgtttgtctg atttatggtt tttttaagta taaacaaaag 240

ttttttatta gcattctgaa agaaggaaag taaaatgtac aagtttaata aaaaggggcc 300

ttcccccttta gaataaaaaa aaaaaaaaaa aaaaaaaaaa aaa 343